

Lock & Dam 23

(Somewhere between Saverton & Clarksville, Missouri)
Mississippi River

U.S. ARMY CORPS OF ENGINEERS

BUILDING STRONG®

Construction: Not Applicable

Description

The final survey report of the 9-Foot Channel Project, published in January 1932 as House Document 137, included a plan for the construction of Lock and Dam 23 at a cost estimate of \$4,842,500.

However, during construction of the Project, it was determined that Lock and Dam 23 was not necessary to maintain the navigation channel and it was eliminated from the plan.

The final survey report of the 9-Foot Channel Project, published in January 1932 as House Document 137, included the following cost estimates for the 9-Foot Channel Project:



1932 9-Foot Channel Project Cost Estimate

| Purchase of Three Large Modern Dredges | \$1,500,000 |
|---|-------------|
| Additional Survey and Studies | \$600,000 |
| Dredging, Washington Avenue Bridge to Northern Pacific Bridge | \$356,000 |
| Dredging, Pool 1, Below Washington Avenue Bridge | \$94,000 |
| Second Lock, Twin Cities Lock and Dam | \$1,300,000 |
| Dredging, Head of Hastings Pool | \$290,000 |
| Second Lock at Hastings | \$1,500,000 |
| Lock And Dam No. 3 | \$3,502,487 |
| Lock And Dam No. 4 | \$3,910,821 |
| Lock And Dam No. 5 | \$3,921,413 |
| Lock And Dam No. 5A | \$3,863,772 |
| Lock And Dam No. 6 | \$3,017,063 |
| Lock And Dam No. 7 | \$4,445,934 |
| Lock And Dam No. 8 | \$4,551,613 |
| Lock And Dam No. 9 | \$4,158,294 |
| Lock And Dam No. 10 | \$3,721,800 |
| Lock And Dam No. 11 | \$3,775,850 |
| Lock And Dam No. 12 | \$3,673,800 |
| Lock And Dam No. 13 | \$4,165,400 |
| Lock And Dam No. 14 | \$3,437,300 |
| Lock And Dam No. 15 (Rock Islandincluding flowage damage and | |
| removal of old lock) | \$6,416,000 |

| Lock And Dam No. 16 | \$4,889,100 |
|---|---------------------|
| Lock And Dam No. 17 | \$4,381,400 |
| Lock And Dam No. 18 | \$5,456,400 |
| Dredging at head of pool 19, including removal of standing timber | \$33,000 |
| Second lock at No. 19, Keokuk | \$1,500,000 |
| Lock And Dam No. 20 | \$4,850,500 |
| Lock And Dam No. 21 | \$4,837,600 |
| Lock And Dam No. 22 | \$4,583,000 |
| Lock And Dam No. 23 | \$4,842,500 |
| Lock And Dam No. 24 | \$5,179,200 |
| Lock And Dam No. 25 | \$4,050,500 |
| Lock And Dam No. 26 | \$4,577,600 |
| Removal of Wing Dams | \$228,700 |
| Flowage Damages | <u>\$12,395,092</u> |
| Total Estimated Cost: | \$124,006,139 |

1932 Estimated Annual Operating and Maintenance Costs

| Total Estimated Annual Cost: | \$1,750,000 |
|---------------------------------------|--------------------|
| Channel Stabilization and Maintenance | <u>\$1,000,000</u> |
| Operation and Care of Locks and Dams | \$750,000 |

The 9-foot Channel Navigation Project

Lock and Dam 23 was never constructed as U.S. Army Corps of Engineers' engineers determined it would not be needed to maintain a 9-foot-deep navigation channel between Locks and Dams 22 and 24.

The 9-foot Channel Navigation Project includes 37 lock and dam sites (42 locks) on 1,200 river miles in Illinois, lowa, Minnesota, Missouri and Wisconsin. Constructed largely in the 1930s, it extends from Minneapolis-St. Paul on the Upper Mississippi River to its confluence with the Ohio River and up the Illinois Waterway to the T.J. O'Brien Lock in Chicago.

The maintenance needs of this aging infrastructure have surpassed annual operations and maintenance funding. This limited funding has adversely affected reliability of the system and has primarily resulted in a fix-as-fail strategy, with repairs sometimes requiring days, weeks or months. Depending on the nature of a failure and extent of repairs, shippers, manufacturers, consumers and commodity investors can experience major financial consequences. Additionally, today's 1,200'-long tows must split and lock through in two operations within the Project's 600' chambers. This procedure doubles and triples lockage times, increases costs and wear to lock machinery, and exposes deckhands to higher accident rates.

More than 580 facilities ship and receive commodities within the Project. Grains (corn and soybeans) dominate traffic; cement and concrete products are the second largest group. A modern 15-barge tow transports the equivalent of 1,050 semi-trucks (26,250 tons, 937,387 bushels of corn, or 240 rail cars). In 2015, the 9-foot channel project generated an estimated \$3 billion of transportation cost savings compared to its approximately \$246 million operation and maintenance cost.

UPDATE: May 2016